CLAIMS

What is claimed is:

1.   A computer network system for processing electronic documents encoded in a

markup language, the computer network system comprising:

3   a communications channel;

4   a first server, the first server being in communication with the communications

5   channel, wherein the first server stores a first schema, the first schema including a

6   definition for a first element in the markup language, the definition of the first element

7   further including a first sub-element in the markup language;

8   a second server, the second server being in communication with the

9   communications channel, wherein the second server stores a second schema, the second

10   schema including a definition for a second element in the markup language, the definition

11   of the second element further including

12   the first sub-element

13   a second sub-element in the markup language.

1   2.   The computer network system of claim 1, wherein the communications channel

2   includes a local area network (LAN).

1   3.   The computer network system of claim 2, wherein the local area network further

2   includes an Ethernet LAN.

1   4.   The computer network system of claim 1, wherein the communications channel

2   includes a wide area network (WAN).

1   5.   The computer network system of claim 1, wherein the communications channel

2   includes the Internet.

1   6.   The computer network system of claim 1, wherein the markup language comprises

2   XML.

1   7.   The computer network system of claim 6, further comprising:

2   a third server, the third server in communication with the communications channel,

3   wherein the third server stores a first XML document instance, wherein the first document

4   instance is interpreted by use of the first schema.

1   8.   The computer network system of claim 7, wherein the first document instance

2   includes the first element.

1   9.   The computer network system of claim 7, wherein the first document instance

2   includes the second element, such that the second element is used in a location reserved

3   for the first element in the first document instance.

1   10.   The computer network system of claim 9, further comprising:

2   a fourth server, the fourth server in communication with the communications

3   channel, wherein the fourth server stores a second XML document instance, wherein the

4   second document instance is interpreted by use of the second schema.

1   11.   The computer network system of claim 10, wherein the second document instance

2   includes the second element.

1   12.   The computer network system of claim 11, wherein the second element is used in a

2   location reserved for the first element in the second document instance.

1   13.   The computer network system of claim 10, wherein the first document instance and

2   the second document instance correspond to a document type, wherein the

3   document type is at least one of a purchase order, a purchase order

4   acknowledgement, an order status check, an availability check, a price check, an

5   invoice, an invoice acknowledgement.

14. A method of extending a definition of a first tag used in a first electronic document, wherein the electronic document is encoded in a markup language, and the document is stored on a server in a computer network, the method comprising:

defining the first tag in a first schema, wherein the definition of the first tag includes a plurality of elements from the markup language;

defining a second tag in a second schema, wherein a definition of the second tag includes

the plurality of elements from the markup language

an additional element from the markup language;

accessing the first schema and second schema in the first electronic document, wherein the first tag and the second tag are used to encode text within the first electronic document.

15. The method of claim 14, further comprising:

parsing the first electronic document, wherein the first electronic document is parsed by a parser for the markup language, the parser being stored on the server.

16. The method of claim 15, wherein the second tag is used in a location reserved for the first tag in the electronic document.

17. The method of claim 16, wherein the markup language is XML.

18. The method of claim 17, wherein the first document corresponds to at least one of a purchase order, a purchase order acknowledgement, an order status check, an availability check, a price check, an invoice, an invoice acknowledgement.

19. The method of claim 14, wherein the first electronic document includes the first tag and the second tag.

20. The method of claim 14, further comprising:

2   accessing the second schema in a second electronic document, wherein the second

3   tag is used to encode the second electronic document.

1   21.   The method of claim 20, further comprising:

2   parsing the second document, wherein the second electronic document is parsed by

3   a parser for the markup language, the parser being stored on the server.

1   22.   The method of claim 21, wherein the markup language is XML.

1   23.   The method of claim 22, wherein the second document corresponds to a

2   commercial transaction.

1   24.   The method of claim 23, wherein the commercial transaction is selected from the

2   group consisting of a purchase order, a purchase order acknowledgement, an order status

3   check, an availability check, a price check, an invoice, an invoice acknowledgement.

1   25.   A computer network system for processing a document instance of a markup

2   language, the computer system comprising:

3   means for defining a first schema in the computer network system;

4   means for extending a definition the first schema by use of a second schema

5   residing on the computer network system;

6   means for importing the second schema into the document instance.

1   26.   The computer network system of claim 25, wherein the markup language is XML.

1   27.   The computer network system of claim 25, wherein the definition of the first

2   schema includes a definition of a tag.

1   28.   The computer network system of claim 27, further comprising:

2   means for extending the definition of the tag by use of the second schema.

1   29.   The computer network system of claim 28, wherein the document instance

2   includes the tag.

1   30.   The computer network system of claim 28, further comprising:

2   means for using an extension of the tag in the document instance, wherein the

3   extension of the tag is used in a location reserved for the tag in the document instance.

1   31.   In a computer network system comprising a plurality of servers, a method of

2   interpreting an XML document, the XML document residing on a first server from the

3   plurality of servers, the method comprising:

4   accessing a first schema from a second server in the plurality of servers, wherein

5   the first schema defines one or more elements used in the document instance;

6   accessing a second schema from a third server in the plurality of servers, wherein

7   the second schema modifies at least one element from the one or more elements used in

8   the document instance.

1   32.   The method of claim 31, wherein the computer network system is used to conduct

2   a commercial transaction between two or more trading partners.

1   33.   The method of claim 32, wherein the XML document corresponds to the

2   commercial transaction.

1   34.   The method of claim 33, wherein the commercial transaction is one of a purchase

2   order, a purchase order acknowledgement, an order status check, an availability

3   check, a price check, an invoice, an invoice acknowledgement.

1   35.   The method of claim 31, further comprising:

2   parsing the XML document, wherein the document is parsed by an XML Processor

3   residing on a fourth server from the plurality of servers.